

①

$$E_{\text{water}} = -E_{\text{metal}}$$

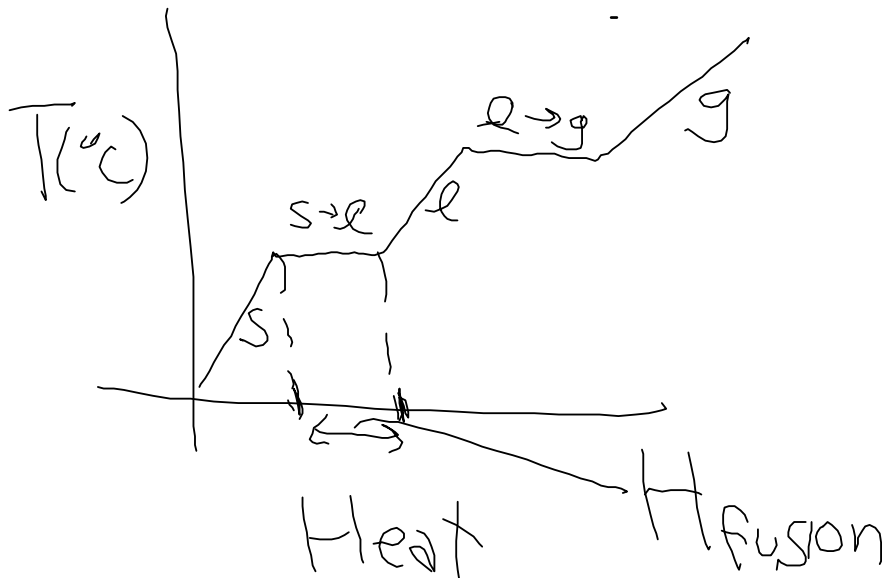
$$m c \Delta T = -m c \Delta T$$

light silver = Al

gold = BRASS

dark metal = IRON

brown = Cu



$$Q = m H_f$$

$$C_{\text{water}} = 4.18 \frac{\text{J}}{\text{g}^\circ\text{C}}$$

②

$$E_{\text{h ice}} - E_{\text{h water}}$$

$$m H_f + m c \Delta T = -m c \Delta T$$

~~liquid~~  
ice

1' 1' 1' 1'

$$T_{\text{ice}} = 0^{\circ}$$